

PATENT

In re the application of)	
)	
Bedell et al.)	Group Art Unit: 1756
)	
Application No. 10/733,097)	Examiner: Chacko-Davis, Daborah
)	
Filed: 12/10/2003)	Attorney Docket No. HIT1P023/
)	HSJ920030085US1
For: IMPROVED PLATING USING)	
COPOLYMER)	Date: September 12, 2007
)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

CORRECTED APPENDIX OF CLAIMS

Submitted herewith is a corrected Appendix of Claims in furtherance of the Appeal Brief filed Oct. 16, 2006, as requested by the Examiner by telephone on Sept. 12, 2007.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 971-2573. For payment of any additional fees due in connection with the filing of this paper, the Commissioner is authorized to charge such fees to Deposit Account No. 50-2587 (Order No. HSJ920030085US1).

Respectfully submitted,

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Date: September 12, 2007

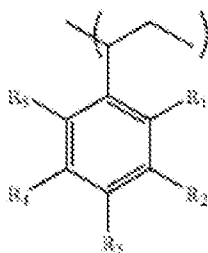
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VIII APPENDIX OF CLAIMS (37 C.F.R. § 41.37(c)(1)(viii))

The text of the claims involved in the appeal is set forth below:

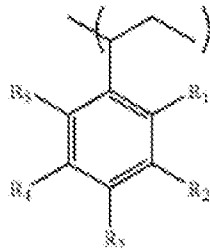
1. A method for plating, comprising:
coating a substrate with a barrier layer, wherein the barrier layer comprises an adhesive composition comprising a polyphenolic polymer, said polyphenolic polymer comprising repeating monomeric units having the formula:



- wherein each of R₁, R₂, R₃, R₄, and R₅ are each individually a hydroxy group, hydrogen, or an azo dye moiety;
- coating the barrier layer with a top layer comprising a photoresist;
- imagewise exposing the top layer to radiation;
- removing a portion of the top layer for exposing a portion of the barrier layer;
- removing the exposed portion of the barrier layer for exposing a portion of the substrate;
- and
- plating a material on the exposed portion of the substrate.
2. A method as recited in claim 1, wherein the substrate includes a seed layer, the barrier layer being formed on the seed layer.
 3. A method as recited in claim 1, wherein the barrier layer comprises 100% of the polyphenolic polymer.
 4. A method as recited in claim 1, wherein the barrier layer is spin coated on the substrate.

5. A method as recited in claim 1, wherein the barrier layer is substantially formed in a monolayer.
6. A method as recited in claim 1, wherein only one of R_1 , R_2 , R_3 , R_4 , and R_5 is hydroxyl.
7. A method as recited in claim 1, wherein the exposed portion of the top layer is removed using a developer.
8. A method as recited in claim 7, wherein the developer also removes the exposed portion of the barrier layer.
9. A method as recited in claim 7, wherein the developer does not remove the exposed portion of the barrier layer.
10. A method as recited in claim 9, wherein the exposed portion of the barrier layer is removed by reactive ion etching.
11. A method as recited in claim 9, wherein the exposed portion of the barrier layer is removed by milling.
12. A method as recited in claim 1, wherein removal of the exposed portion of the barrier layer does not create undercuts under the photoresist.
13. A method as recited in claim 1, wherein removal of the exposed portion of the barrier layer creates undercuts under the photoresist.
14. A method as recited in claim 1, wherein the barrier layer also functions as an antireflective coating.
36. A method for preventing exposure of protected portions of a substrate during plating, comprising:

coating a substrate with a barrier layer, wherein the barrier layer comprises an adhesive composition comprising a polyphenolic polymer, said polyphenolic polymer comprising repeating monomeric units having the formula:



wherein each of R₁, R₂, R₃, R₄, and R₅ are each individually a hydroxy group, hydrogen, or an azo dye moiety;

coating the barrier layer with a top layer comprising a photoresist;

imagewise exposing the top layer to radiation;

removing a portion of the top layer for exposing a portion of the barrier layer;

removing the exposed portion of the barrier layer for exposing a portion of the substrate;

and

plating a material on the exposed portion of the substrate,

wherein the barrier layer is present in an effective amount to prevent cracks in the photoresist from transferring through the barrier layer and exposing portions of the substrate.